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09/827,447	04/06/2001	Ernesto C. Barreyro	7190	6188

7590 07/31/2003

Zenith Electronics Corporation  
2000 Millbrook Drive  
Lincolnshire, IL 60069

EXAMINER

TRAN, TRANG U

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 07/31/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Signature

**Office Action Summary**

Application No.

09/827,447

Applicant(s)

BARREYRO ET AL.

Examiner

Trang U. Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 16 July 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 9-10, 12, 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Reitmeier (US Patent No. 6,115,080).

In considering claim 9, Reitmeier discloses all the claimed subject matter, note 1) the claimed finding the data component identifying the first selected channel in the PSIP data table received in the digital television signal is met by the tuner 10A or 10B which receives the RF signal source 5 (Figs. 1 and 4, col. 3, lines 41-65 and col. 11, lines 28-54), and 2) the claimed replacing the data component identifying the first selected channel with the data component identifying the second selected channel is met by the remapped channel of channel selection process and the remapping function may be implemented in a standard manner using, e.g., a lookup table, the lookup table may be updated in a standard manner (Fig. 5, col. 12, line 38 to col. 13, line 67).

In considering claim 10, the claimed wherein the finding of the data component and the replacement of the data component identifying the first selected channel with the data component identifying the second selected channel are performed at baseband is met by the routine of channel changing program 330 which processes after demodulated (recovered the baseband signal) (Fig. 5, col. 12, line 38 to col. 13, line 67).

In considering claim 12, the claimed further comprising replacing a virtual channel data component in the PSIP data table with a replacement virtual channel data component is met by the remapped channel of channel selection process which replaces the channel identification number (Fig. 5, col. 12, line 38 to col. 13, line 67).

In considering claim 14, the claimed further comprising replacing an NTSC channel data component in the PSIP data table with a replacement NTSC channel data component is met by the remapped channel of channel selection process (Fig. 5, col. col. 12, line 14 to col. 13, line 67).

In considering claim 16, the claimed further comprising replacing a virtual channel data component in the PSIP data table with a replacement virtual channel data component is met by the remapped channel of channel selection process which replaces the channel identification number (Fig. 5, col. 12, line 38 to col. 13, line 67).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reitmeier (US Patent No. 6,115,080) in view of Citta et al (US Patent No. 6,559,898 B1).

In considering claim 1, Reitmeier discloses all the claimed subject matter, note 1) the claimed a tuner tuned to receive an RF digital television signal on a first selected

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television channel is met by the tuner 10A or 10B which receives the RF signal source 5 (Figs. 1 and 4, col. 3, lines 41-65 and col. 11, lines 28-54), 2) the claimed a demodulator arranged to provide a baseband television signal from the RF digital television signal to which the tuner is tuned, wherein the baseband television signal includes a data component identifying the first selected channel is met by the demodulator 15 (Figs. 1 and 4, col. 3, lines 41-65 and col. 11, lines 28-54), and 3) the claimed a data replacer arranged to replace the data component identifying the first selected channel with a data component identifying a second selected channel different from the first selected channel is met by the remapped channel of channel selection process (Fig. 5, col. 12, line 38 to col. 15, line 48). However, Reitmeier explicitly does not disclose the claimed a modulator arranged to modulate the baseband television signal including the data component identifying the second selected channel for transmission as a digital television signal on the second selected channel.

Citta et al teach that the encoded and modulated VSB signal is supplied over a cable network 23, which may comprise a single coaxial cable or a relatively complex home cable network, to an RF channel input of a tuner 26 of the VSB digital television receiver 24, the signal may also be amplified by a low power RF amplifier 25 (Fig. 1) and transmitted wirelessly to the VSB digital television receiver 24 in an assigned RF broadcast television channel (Fig. 1, col. 3, lines 34-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the modulator as taught by Citta et al into

Reitmeier's system in order to provide a digital encoder-modulator for coupling a baseband digital signal to a VSB digital television receiver.

In considering claim 3, the claimed wherein the data replacer is also arranged to replace a virtual channel data component in the baseband television signal with a replacement virtual channel data component is met by the remapped channel of channel selection process (Fig. 5, col. 12, line 38 to col. 15, line 48) of Reitmeier.

In considering claim 5, the claimed wherein the data replacer is also arranged to replace an NTSC channel data component in the baseband television signal with a replacement NTSC channel data component is met by the remapped channel of channel selection process (Fig. 5, col. 12, line 38 to col. 15, line 48) of Reitmeier.

In considering claim 7, the claimed wherein the data replacer is further arranged to replace a virtual channel data component in the baseband television signal with a replacement virtual channel data component is met by the remapped channel of channel selection process (Fig. 5, col. 12, line 38 to col. 15, line 48) of Reitmeier.

5. Claims 2, 4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reitmeier (US Patent No. 6,115,080) in view of Citta et al (US Patent No. 6,559,898 B1) and further in view of Elkind et al (US Patent No. 5,208,666).

In considering claim 2, the combination of Reitmeier and Citta et al disclose all the limitations of the instant invention as discussed in claim 1 above, except for providing the claimed wherein the data replacer is also arranged to re-compute a cyclic redundancy code based upon the data component identifying the second selected channel and to replace a cyclic redundancy code data component in the baseband

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television signal with the re-computed cyclic redundancy code. Elkind et al teach that in the first mode a check data word, that may be or include a cyclic redundancy check (CRC) data word, is calculated for the active picture area of one field of the digital television signal and placed in the active picture area of the next field at a predetermined location (col. 1, line 34 to col. 2, line 64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the cyclic redundancy check (CRC) as taught by Elkind et al into the combination of Reitmeier and Citta et al's system in order to assure error detection when only the active picture portion of a television signal is transmitted.

Claim 4 is rejected for the same reason as discussed in claim 2.

Claim 6 is rejected for the same reason as discussed in claim 2.

Claim 8 is rejected for the same reason as discussed in claim 2.

6. Claims 11, 13, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reitmeier (US Patent No. 6,115,080) in view of Elkind et al (US Patent No. 5,208,666).

In considering claim 11, Reitmeier discloses all the limitations of the instant invention as discussed in claim 9 above, except for providing the claimed re-computing a cyclic redundancy code based upon the data component identifying the second selected channel, and, replacing a cyclic redundancy code data component in a PSIP packet with the re-computed cyclic redundancy code. Elkind et al teach that in the first mode a check data word, that may be or include a cyclic redundancy check (CRC) data word, is calculated for the active picture area of one field of the digital television signal

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and placed in the active picture area of the next field at a predetermined location (col. 1, line 34 to col. 2, line 64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the cyclic redundancy check (CRC) as taught by Elkind et al into the combination of Reitmeier and Citta et al's system in order to assure error detection when only the active picture portion of a television signal is transmitted.

Claim 13 is rejected for the same reason as discussed in claim 11.

Claim 15 is rejected for the same reason as discussed in claim 11.

Claim 17 is rejected for the same reason as discussed in claim 11.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Smyth et al. (US Patent No. 6,598,229 B2) disclose system and method for detecting and correcting a defective transmission channel in an interactive information distribution system.

Thomas et al. (US Pub. No. 2002/0047902 A1) disclose digital television signal test equipment.

Choi (US Patent No. 6,473,129 B1) discloses method for parsing event information table.

Chaney (US Patent No. 5,841,433) discloses digital television system channel guide having a limited lifetime.



Kim et al. (US Patent No. 6,209,131 B1) disclose apparatus and method for processing additional information in display device.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Trang U. Tran** whose telephone number is **(703) 305-0090**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **John W. Miller**, can be reached at **(703) 305-4795**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231


**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

TT TT  
July 28, 2003

  
**JOHN MILLER**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**